

AUTHORS	Eades,C.J. and Hintz,W.E.
TITLE	Characterization of the class I alpha-mannosidase gene family in the filamentous fungus <i>Aspergillus nidulans</i>
JOURNAL	Gene 255 (1), 25-34 (2000)

AUTHORS	Maras,M., Callewaert,N., Piens,K., Claeysens,M., Martinet,W., Dewaele,S., Contreras,H., Dewerte,I., Penttila,M. and Contreras,R.
TITLE	Molecular cloning and enzymatic characterization of a <i>Trichoderma reesei</i> 1,2-alpha-D-mannosidase
JOURNAL	J. Biotechnol. 77 (2-3), 255-263 (2000)

AUTHORS	Yoshida, T. and Ichishima, E.
TITLE	Molecular cloning and nucleotide sequence of the genomic DNA for 1,2-alpha-D-mannosidase gene, msdC from <i>Penicillium citrinum</i>
JOURNAL	Biochim. Biophys. Acta 1263 (2), 159-162 (1995)

AUTHORS	Inoue,T., Yoshida,T. and Ichishima,E.
TITLE	Molecular cloning and nucleotide sequence of the 1,2-alpha-D-mannosidase gene, msdS, from <i>Aspergillus saitoi</i> and expression of the gene in yeast cells
JOURNAL	Biochim. Biophys. Acta 1253 (2), 141-145 (1995)

Penicillium.citrinum	-----	60
Aspergillus.saitoi	-----	
Mns1B_	-----	
Trichoderma.reesei	-----	
Mns1C_	MPRRWSSLISITAFILVLVFLFLHRNTDTPRAANRATNGPANGFARQQSICPSPTPPQPPYN	60
Penicillium.citrinum	-----	
Aspergillus.saitoi	-----	
Mns1B_	-----	
Trichoderma.reesei	-----	
Mns1C_	RTSTGGFNWGEIPVRYPVSDFIPLSTNSPATLPRIQRSSFPLQSS---ITKSRQAAVKGA	118
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Penicillium.citrinum	QHAWNGYMKYAFPHDELTPVSNHGADSRNGWASAVDALSTAVIMGKADVNAILEHVAD	108
Aspergillus.saitoi	SHAWDGYLQYAFPHDELHPVSNNGYGDNRNGWASAVDALSTAVIMRNATTIVNQLDHWGK	110
Mns1B_	SHAWDGYNYAFPHDELHPISNGYGDNRNHGASAVDALSTAIMMRNATTIVNQLDHIAA	101
Trichoderma.reesei	QTSWNAYHHFAFPHDDLHPVSNFDDERNWGSSAIDGLDTAILMGDADIVNTILQVVPQ	103
Mns1C_	QRAWTSYTHAWKADEVRPITAGSRNNGFGWGATLVNDLDTILLIMGLDEEFAAAVDALAD	178
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Penicillium.citrinum	IDFSKTSDDT-----VSLFETTIRYLGLAGMSGYDLLQGFPAKNLVNQLDIDGLLDQSRNL	162
Aspergillus.saitoi	IDYSKTNIT-----VSLFETTIRYLGLMGLSGYDLLKGFVSDLVQSSKIDVLLTQSKNL	164
Mns1B_	VDYSKTNAM-----VSLFETTIRYLGLMISGYDLLKGPAGLVDD-SRVDVLLEQSQNL	154
Trichoderma.reesei	INFTTTAVANQG---SSVFETNIRYLGLLLSAYDLLRGPFFSLATNQTILVNSLLRQAQTL	160
Mns1C_	IEFSPHSSPSSSQSTINIFETTIRYLGLLLAAYDLTG-----CRETRLDDKATQL	228
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Penicillium.citrinum	ADVLKFAPDTPSGVPPYNNINIT-SHGND---GATTNGLAVTGTLVLEWTRLSDLTGDEEY	218
Aspergillus.saitoi	ADVLKFAPDTPSGVPPYNNINIT-SGGND---GAKTNGLAVTGTLALEWTRLSDLTGDTTY	220
Mns1B_	AEVLKFAPDTPSGVPPYNNINIT-SGGND---GATTNGLAVTGTLVLEWTRLSDLTGNDY	210
Trichoderma.reesei	ANGLKVAFTPSGVPDPTVFVFNPTVRRS---GASSNNVAEIGSLVLEWTRLSDLTGCPQY	217
Mns1C_	GEMIYTSFDTENRMPVPRWNLHKAGNGEPQRAAVQGVLAELASSSLEFTRLSDLTGDMRY	288
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Penicillium.citrinum	AKLSQKAESYLLKQPQSSSEFPFGLVGGSSININDQGFAD-SRVSWNGGDDSFYEYLKMY	277
Aspergillus.saitoi	ADLSQKAESYLLNPQPKSAEFPFGLVGGSSININSNGQFTD-AQVSWNGGDDSFYEYLKMY	279
Mns1B_	ARLSQRAEDYLLHPEPAQYEPFGLIGSAVNIADGKLAN-GHISWNGGADSFYEYLKMY	269
Trichoderma.reesei	AQLAKGSESYLLNPK-GSPEAWPGLIGTFVSTNSNGTFQD-SGSGWGLMDSFYEYLKMY	275
Mns1C_	FDAASR-ITDLDLQAGHTR-IPGLWPVSNLQKGLDTRGSTFSFGMGADSAEYELGKTY	346
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Penicillium.citrinum	VYDP--KRFETYKDRVWLAESTIKHLKSHPKSRPDLTFLSS-----YSNR-NYDLSSQH	329
Aspergillus.saitoi	VYDP--KRFGLYKDRVWAAQSTMQHLASHPSSRPDLTFLAS-----YNGN-TLGLSSQH	331
Mns1B_	VYDP--ERFGLYDRVWAAEESINHLASHPSTRPDVTFLAT-----YNEHQGLQSLTQH	322
Trichoderma.reesei	LYDP--VAFAYKDRWLGLADSTIGHLGSHPSSTRKDLTFLSS-----YNGQ-STSPNSGH	327
Mns1C_	RLGCVGKGPQYERLARNALDAGIRHLLFRPMTDPHADILLPGVAHATSSSVGLEPTEH	406

